Amendments to the claims:

Please replace all prior versions and listings of the claims with the following amended claims:

1-18. (canceled)

19. (currently amended) A laser system comprising:

a. a laser source for generating laser light comprising laser bursts comprising laser pulses; and

b. a laser applicator for delivering a portion of the laser light to a target vascular tissue area, the laser applicator comprising:

i. an optical fiber including a trunk optical fiber;

ii. an endo-probe coupled to the trunk optical fiber including a delivery optical fiber with an input end for receiving laser radiation from the trunk optical fiber; and

iii. a shielding structure coupled to the endo-probe ~~wherein the shielding structure protects tissue surrounding the target area~~ including a housing portion that surrounds a section of the delivery optical fiber and a beam blocking portion to block forward propagation of the laser and to form a gap with the housing portion through which the laser light is emitted.

20. (original) The system of claim 19, wherein the laser source is configured to generate laser light with energy corresponding to between 1 and 200 mJ/per pulse.

21. (original) The system of claim 19, wherein the laser source is configured to generate the laser bursts with a repetition rate of between 40 and 10 Hz.

22. (original) The system of claim 19, wherein the laser source is configured to generate the laser bursts with a separation of less than 2.0 milliseconds.

23. (currently amended) The system of claim 19, wherein the laser burst comprises between 1-24 laser pulses.

24. (currently amended) The system of claim 22, wherein the laser pulses are separated by less than 2.0 milliseconds.

25. (currently amended) The system of claim 23, wherein the laser pulses have pulse widths of less than 100 microseconds.

26. (previously presented) The system of claim 19, wherein the laser applicator comprises a flexible optical fiber with a firing end having a diameter of less than 500 microns.

27. (original) The system of claim 26, wherein the optical fiber is selected from the group consisting of fused silica fiber and a sapphire fiber.

28. (canceled).

29. (original) The system of claim 26, wherein the applicator further comprises means to control a distance of the firing end from the vascular tissue.

30. (canceled).

31. (previously presented) The system of claim 19, wherein the laser applicator is flexible allowing the laser light to be delivered to the vascular tissue at a range of approach angles.

32-47 (canceled).

48. (currently amended) A laser system comprising:

a. means to generate bursts of laser light comprising laser pulses;

b. means to focus the laser light into a trunk optical fiber; ~~and~~

c. a flexible endo-probe coupled to the trunk optical fiber, the endo-probe ~~comprises~~ comprising a delivery optical fiber with an input end for receiving laser radiation from the trunk optical fiber and a firing end ~~for exposing a target area of vascular tissue the~~ , the flexible endo-probe further comprising a shroud feature that

surrounds a portion of the delivery optical fiber and a beam blocking structure to block forward propagation of laser light and to form a gap with the shroud feature; and

d. means to adjust an approach of the delivery optical fiber to the target area of vascular tissue during use.

49. (canceled).

50. (previously presented) The laser system of claim 48, wherein the input end of the delivery optical fiber has a diameter of less than 500 microns.

51. (currently amended) The laser system of claim [[49]] 48, wherein the firing end of the delivery optical fiber has a diameter of 300 micron or less.

52. (previously presented) The laser system of claim 48, wherein the firing end of the delivery optical fiber has a diameter in a range of 50 to 225 micron.

53. (currently amended) The laser system of claim [[49]] 48, wherein the ~~guide structure is a tubular housing structure that is bent~~ means to adjust an approach of the delivery optical fiber to the target area is configured to adjust the firing end of the delivery optical fiber at ~~an angle~~ angles between 0 ~~to~~ and 90 degrees.

54. (previously presented) The laser system of claim 48, wherein the delivery optical fiber is a side firing optical fiber.

55. (canceled).

56. (currently amended) The laser system of claim [[55]] 54, wherein the means to generate bursts of laser light comprises an Er:YAG laser medium.

57. (currently amended) The laser system of claim 48, wherein the means to generate bursts of laser light is configured to provide between 5 and 200 mJ/per pulse.

58. (previously presented) The laser system of claim 48, wherein the means to generate bursts of laser light is configured to generate laser pulses with a repetition rate between 40 and 10 Hz.

59. (currently amended) The laser system of claim 48, wherein the means to generate bursts of laser light is configured to generate ~~a burst~~ bursts of laser light that are ~~separations of separated by~~ less than 2.0 milliseconds.

60. (previously presented) The laser system of claim 48, wherein the means to generate bursts of laser light is configured to generate 1-20 laser pulses for each laser burst.

61. (previously presented) The laser system of claim 60, wherein the means to generate bursts of laser light is configured to generate the laser pulses at pulse separations of less than 2.0 milliseconds.

62. (previously presented) The laser system of claim 48, wherein the delivery optical fiber is selected from the group consisting of a fused silica fiber and sapphire fiber.

63. (previously presented) The laser system of claim 48, wherein the trunk fiber is a sapphire optical fiber.

64. (previously presented) The laser system of claim 48, wherein the means to adjust the approach of the delivery optical fiber comprises a mechanism to slidably extend the delivery optical fiber from the endo-probe.

65. (previously presented) The laser system of claim 64 wherein the delivery optical fiber is slidably extendable when the endo-probe is situated within a tissue cavity.

66. (previously presented) The laser system of claim 48, wherein the means to adjust the approach of the delivery optical fiber comprises a mechanism to adjust the approach angle through a range of angles.

67. (previously presented) The laser system of claim 66, wherein the delivery optical fiber approach angle is adjustable when the endo-probe is situated within a tissue cavity.